Upper & Lower Mississippi River Basins
"Showcase Watersheds"

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- **The "Action Plan for Reducing, Mitigating, and Controlling Hypoxia in the Northern Gulf of Mexico" is a strategy based on five principles:**
  - Encourage actions that are voluntary, practical, and cost-effective;
  - Utilize existing programs, including existing State and Federal regulatory mechanisms;
  - Follow adaptive management;
  - Identify additional funding needs and sources during the annual Agency budget process; and,
  - Provide measurable outcomes.

- **The "Action Plan" encourages states to establish sub-basin committees to coordinate:**
  - implementation of the Action Plan by major sub-basins, and
  - coordination among smaller watersheds

- **Partners in the Lower Mississippi River Basin are being encouraged to identify "Showcase" watersheds to demonstrate that funding under existing programs can be used more effectively to reduce hypoxia**
  - Suggested selection criteria were provided to states
  - Missouri committee met October 28, 2003
  - Committee considered nine possibilities
  - Recommended two "Focus Watersheds" for MALMRI for approval

- **St. Francis River Sub-Basin - Lower Mississippi River Basin**
  - Average annual nitrate yields identified as a concern
  - NRCS Irrigation Management Water Quality Project Office – Dexter
  - USDA-ARS irrigation management research ongoing in the region
  - Multiple data layers exist in digital format for intensive GIS
  - "Team-Up" 319 project
    - administered by UMC
    - will focus on irrigation management to reduce nitrate and other contaminant-degradation of Missouri ground water
    - partners: UOE, MDNR, NRCS, and SWCDs
  - Work carried out by UMC and ARS at various research sites
  - A few 319's and AgNPS SALT projects including:
    - Stoddard SWCD – Cypress Ditch
    - Stoddard SWCD – Dexter Creek (proposed)
    - SEMO Water Quality Project is monitoring irrigation wells
    - AgNPS SALT application

- politically strong region
- potential water quality problems from agriculture are a concern
- strong interest in precision agriculture using variable rate technology with considerable field level data available

- **North Fork of the Salt River Sub-Basin - Upper Mississippi River Basin**
  - Average annual nitrate yields not recognized as a concern, but the potential exists for a future concern based on nitrogen loadings from commercial fertilizer and manure loadings from confined livestock
  - Consists potentially of two 11-digit HUCs totaling 361,392 acres
  - Watershed restoration action strategy developed & being implemented on a portion of the area
  - 319 funded project
  - Numerous committees, action activities & partners
  - Protects source water for Clarence Cannon Wholesale Water Commission customers & Mark Twain Lake
  - "Paired watershed" study on Cooked and Otter Creeks
    - may be revived by USDA-ARS
    - opportunity to partner with Iowa State University and University of Missouri-Columbia "Floodplain Project" looking at impacts of riparian corridors on watersheds and stream stabilization
  - Missouri Corn Growers Association's "Watershed Research, Assessment and Stewardship Project (WRASP) project sites are within the watershed
    - research is on-going; good baseline information
    - 319 funding mixed with other funds
    - involvement with ARS and private industry
    - project is comprised of multiple, smaller sub-watersheds
  - Missouri Department of Agriculture's "Hypoxia Education & Stewardship Project" funded by U.S. EPA may target this watershed
  - Opportunity to partner with numerous projects in that region
  - Focus on reducing sediment and nutrients protecting Mark Twain Lake and rural water supplies
  - Good congressional and state legislative support
  - Large farm bill workload
  - Multiple data layers exist in digital format for intensive GIS

- **Missouri committee expressed interest in taking a positive, pro-active approach to addressing hypoxia**
  - Missouri farmland not known as a major contributor of nitrogen to Gulf
  - Existing data does not support a nitrogen problem in relation to other corn belt states

- **RECOMMENDATIONS:**
  - MALMRI Directors approve suggested watersheds as "Focus Watersheds"
  - MDNR to take the lead in coordinating activities on both sub-basins
  - Support these demonstrations by using existing resources